Chapter I

THE COMMUNITY OF BANG CHAN

The Geographical Setting

In the populous flat central plain of Thailand where Bang Chan was located, fenceless geometric rice-fields, dotted by clumps of trees, stretch as far as the eye can see. Houses, clustering occasionally into hamlets, line the canals that serve for domestic use, drainage, irrigation and communication. A few mounded-up roads lead out from Bangkok, the national capital on the Menam Chao Phraya, the great central river.

The monsoon divides the year into three seasons: a hot and wet (late May through November); a cool and dry (December to mid-February); and a hot and dry (late February to mid-May). The temperatures range annually from 59° to 89° F. (15° to 32° C.) with monthly means of 77° to 86° F. (25° to 30° C.) (de Young:5). A drop at night averages around 18° F. (10° C.) in April, and 22° F. (12° C.) in January, while the relative humidity varies between 65 per cent and 81 per cent (Hauck, et al.:12). Rainfall averages about 50 inches a year, 40 of which fall in the wet season (Janlekha:21). Because of the run-off from the mountains in the north, once a year the Menam Chao Phraya slowly rises, fills the canals and then overflows its banks, covering the plain for hundreds of miles to a depth of three feet or more. In Bang Chan, the water stood on the land from June until January, with its peak in October. From February to May the canals ran low, and the land dried and cracked from the intense heat.

The Community

In 1954, 1700 persons (336 families) lived in Bang Chan. Muslims, comprising 10 per cent of the population, lived as fully Thai citizens in all parts of the community in economic and social symbiosis with Buddhists. A few ethnic Chinese had married into Thai families and were accepted.

The community spread over an area of about 7000 rai (1000 hectares or 5 square miles). Bang Chan Canal bisected

INTRODUCTION

121 This study of food habits and nutrient intakes in a Siamese rice village was undertaken in connection with the Cornell Thailand Project. The project is one of several under the auspices of the Department of Sociology and Anthropology, which are focused on the process of cultural change
114 in non-industrialized societies. Dietary studies designed to contribute to a base-line description of the community were carried out from September, 1952 through May, 1954. Local headquarters, where members of the research group kept equipment, and could stay overnight, were maintained in the village.

128 The observations to be reported fall into two general categories: 1) descriptive information concerning many aspects of the food situation in Bang Chan and 2) quantitative information on food intake, and its estimated nutrient
126 value, for 11 selected families. Qualitative information on food in Bang Chan was obtained from several sources: 1) field notes made by various members of the Cornell research group, 2) structured interviews with mothers about their own food, and that of small children in the family, 3) records of food eaten during 24-hour periods, submitted by children in the third and fourth grades of the elementary school as homework for the health class, and 4) weighed dietary studies carried
114 out in 11 selected households. Quantitative information on food intakes was obtained from the latter source only. Most of the data to be presented were obtained between September 1952 and June 1954, but supplementary information was obtained from a diary for 1955, kept by a school teacher at the request of the research group, a study of innovations made by Ralis in May 1955 (Goldsen and Ralis, 1957) and information provided at our request by members of the Cornell research group who were in Thailand in the summer of 1957.

A general account of the economic, political and social organization of Bang Chan in 1948-49, together with some material on health and diet was given in the first interim report issued on the Thailand Project (Sharp et al., 1953). The second interim report concerned aspects of health, sanitation and nutritional status in Bang Chan in 1952-54 (Hauck, 1956), and the third was a report on factors related to acceptance of innovations (Goldsen and Ralis, 1957).

THE COMMUNITY

Location, Climate, Transportation

131 Bang Chan is situated in the rice-producing area of central Thailand, about twenty miles by road northeast of Bangkok.

FOREWORD

In this Data Paper, Professor Hauck and her associates continue their analysis and reporting of the field research into conditions of health, sanitation, nutritional status, and diet carried out in Thailand during 1952, 1953, and 1954. Research operations were concentrated among the 300 households of the village of Bang Chan, whose population of about 1,700 was made up primarily of rice farming families. This community lies in the central plain of Thailand some twenty roadmiles northeast of the capital, Bangkok, whose proximity provides major and continuing stimuli to cultural change. Investigation of the processes involved in changing cultural behavior in rural Thailand is the primary objective of this and other field research conducted under the auspices of the Cornell Thailand Project.

Reference to earlier reports by Professor Hauck and her associates and to other materials providing general background information for this study will be found in the bibliography included in this interim report. Dr. Hauck, who is Professor of Food and Nutrition in the New York State College of Home Economics, Cornell University, designed and supervised the research on basic problems of health in Bang Chan reported on in this and in the other studies cited. Of the other contributors to this present report, Dr. Anusith, who has been working in the Medical School of Tulane University, is associated with the School of Public Health in Bangkok, and Dr. Saovanee, having completed her doctoral work in nutrition at Harvard University, has returned to Thailand to join the faculty in home economics at Kasetsart University. The Cornell Thailand Project is much indebted to these scholars and to other Thai and American collaborators who have contributed so much to the studies of Bang Chan.

Lauriston Sharp, Director
Cornell Thailand Project

Ithaca, New York
November, 1959

4:Phillips E-4,5 (1956-1957) 1966
AO7 Central Thai AO7
Bang Chan

Houses in the village vary considerably in appearance: from the bamboo and thatch dwellings of the poorest families to the sturdy, great gabled houses of teak built by Bang Chan's original settlers to the tiled and corrugated iron-roofed homes of the newly rich. Most, however, follow the traditional Siamese pattern of being built on posts two to ten feet off the ground, mainly as a protection against flood waters. Many homes in Bang Chan give the impression of being permanently unfinished, the bamboo houses because they require constant refurbishment, the wooden dwellings because they are made of teak which seasons best when left untreated and exposed directly to the elements. The merging upper-class urban pattern of painting teakwood has not yet reached Bang Chan.

The major thoroughfare of the community, bisecting it in a north-south direction and perpendicular to the Bangkok-Minburi highway, is Khlɔɔŋ (or Canal) Bang Chan, which links with Khlɔɔŋ Sɛɛn Sɛɛb three kilometers south of the village. The latter, dug in the 1840's and originally intended as a military route to the Cambodian frontier, is one of several major canals dug during the mid-nineteenth century as part of the vast canal system that was constructed in the Central Plain when the region was opened for commercial rice production. Together with the highway built since World War II, a one-hour bus ride to the capital, Khlɔɔŋ Sɛɛn Sɛɛb, provides the villagers with their major access to Bangkok and the rest of the Central Plain. By motorboat a trip to Bangkok via this large, bustling canal takes approximately three hours.

Despite these relatively good communications facilities and the long-standing Thai peasant tradition to *paj thiaw* ("to go around"—for fun, on visits, pilgrimages, often for long distances) few people outside the immediate vicinity of the village have ever heard of Bang Chan. The community is neither a landmark nor is it located near one; it is not famed for any activities (other than having become the research site for the "American professors"); and because it is not a spatially integrated village, Bang Chan cannot even be found on any map of Thailand. Like most Thai settlements, Bang Chan has a Buddhist monastery and a government elementary school. It is these two structures that give the village its identity and the local people a sense of belonging to a community. People say that they live "at home in Bang Chan" because they make their merit at the monastery of Bang Chan and send their children to the Bang Chan school. Approximately five square miles in size and inhabited by 1,771 people living in 296 households (1956 village census), Bang Chan seems in physical appearance and social significance like the thousands of other communities that dot the rice fields of the great Central Plain.

To what extent Bang Chan may be considered "typical" in an analytic sense of other villages of the Mɛɛnaam Valley, or even of the country as a

121 established that none of the correlated factors finally turned out to produce the disease--the necessary condition was a bacillus. Indeed, some of the factors mentioned might be viewed as results of the illness rather than as causal factors. Correlational analysis in a study of this type can establish only that the factors associated with tuberculosis constitute the context within which the necessary condition (in this case the bacillus) was known to operate. In the second example, traffic accidents, it is perfectly apparent that age , or time of day, cannot produce a car accident, but the linkage between accidents and other factors provides portions of the context where accidents occur.

Why is it important to understand this context' Such knowledge can lead to inferences about more direct causation, which serve to narrow down the clinician or experimenter's search for the necessary condition. Indeed, a necessary condition may operate only when it is imbedded in this complex matrix of other related variables--or may even be rendered inoperative when the context is changed. Thus efforts toward change or improvement can be made more effective by being directed to the relevant conditions.

It is essentially this kind of reasoning which underlies the procedure of the present study. Just as in the examples cited, linkages can lead to inferences about causation which may later be checked in the laboratory, so, in the same way, linkages discerned in the present study can lead to inferences about causal factors. They are useful chiefly in providing the context within which the decision to try out these sorts of innovations comes about. In this sense of understanding the context, efforts to produce social change may be made with more understanding of the dynamics.

We may now turn to the data collected in Bang Chan for a study of factors related to acceptance or rejection of innovations within the larger context of a rural community in contemporary Thailand.

THE COMMUNITY AND THE INNOVATIONS

The Scene of Bang Chan

361 Twenty-five miles by highway northeast of Bangkok is situ-
[131] ated the community of Bang Chan. In this section of the central plains the inhabitants live as near as possible to the rice paddies which they till, so that instead of a compact village Bang Chan is a community spreading broadly along the banks of a
[621] canal network which from its two-mile stretch through Bang Chan, covers most of Central Thailand. Under these circumstances precise definition of the community becomes difficult and might be

II. DEFINITIONS

Definitions are here provided only for a few basic terms within the context of this survey. An attempt will be made to discuss the many concepts contained in the questionnaire before the beginning of the actual field work, as the desirability to keep this guide short makes it unadvisable to go into lengthy details at the present time.

A household is a single person or a group of persons making one economic unit and distinguished as one kitchen unit. It is likely that members of the same household sleep under one roof (or roofs) belonging to one person, but the main criterion of the definition is the kitchen unit. With each kitchen goes one household. There is occasionally more than one household under one roof; this is found when more than one kitchen is encountered in one dwelling unit.

The head of the household, shortly referred to as HH, is the person whom other members of the household consider to be the head and who lives in this household - we exclude absentee heads of households.

Relationship to the HH is to be designated as whatever applies among the following categories: husband, wife, son, daughter, father, mother, mother-in-law, or "other relative."

Respondent, shortly referred to as R., is the person being interviewed. The R. should preferably be the HH, or, in the absence or nonavailability of the HH, an articulate adult member of the household.

Articulate member of the household is a person in a given household who could be considered eligible to substitute as R. for the HH. An articulate member of the household is another member of the same household as the HH. Such an articulate member should be an adult in the position to express himself without unusual difficulties and he is expected to have a scope of views not much less limited than those of the HH.

III. PROCEDURE

Our survey will be conducted in Bang Chan, shortly referred to as BC. This is a rice village about 20 miles from Bangkok. The Cornell Research Center has been working in this village for many years and friendly relations have been established all over. Senior members of the Cornell Research Center have taken great pain in maintaining good rapport with the villagers and are, naturally, anxious that nothing should occur to damage the established fine relations. Each interviewer is expected to keep this in mind all the time while in BC.

7: Janlekha X-4,5 (1948-1953)1956 AO7 Central Thai AO7
Bangchan

CHAPTER II

THE COMMUNITY

Geography

131 The community of Bangchan is situated some twenty road-miles northeast of Bangkok in the heart of the economically all-important commercial rice growing area of central Thailand. Surrounded by their rice fields, the population 361 [161] of about 1,600 persons lives on some three hundred small [503] family homesteads scattered along a half dozen connecting *[243] canals. The community occupies an area of 6,500 rai,[1] or 2,600 acres, all of which, with the exception of about 300 rai of homesites and narrow strips bordering canals, is given over to the production of wet rice.

134 The soil of Bangchan area is heavy dark clay with *243 an impervious layer at a depth of about six to eight inches and is suited only to rice growing.

133 The area is essentially flat, rising slightly toward 312 the north. It receives, in addition to rain water, irrigation water channeled into it through the Saen-saeb Canal one mile to the south, Samwa Canal one mile to the east, and Khlong-song Canal one mile to the north.[2]

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[804] 1. One rai is equal to two-fifths of an acre.

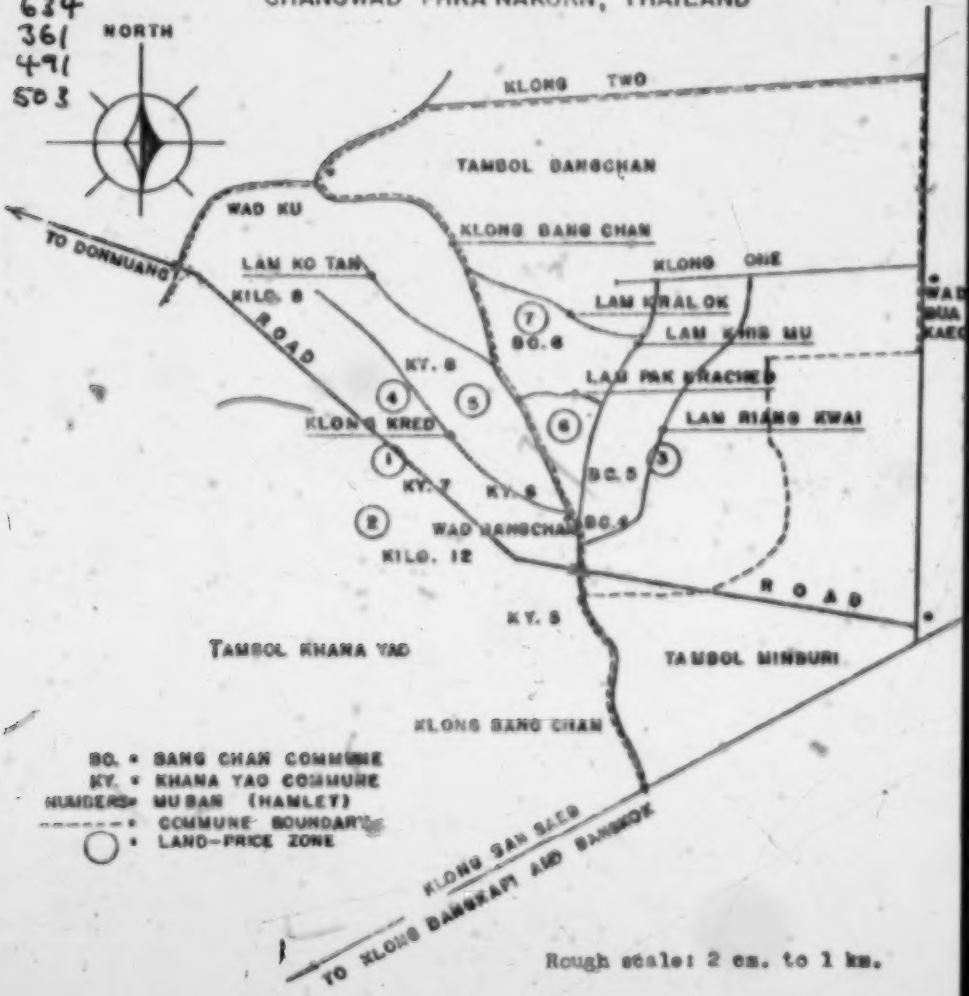
2. See map on page 162.

7: Janlekha X-4,5 (1948-1953)p956 AO7 Central Thai AO7
Bangchan

MAP I

131
103
102
634
361
491
503

SKETCH MAP OF TAMBOL KHANA YAO, AMPHOE BANGKAPI
AND TAMBOL BANGCHAN, AMPHOE MINBURI
CHANGWAD PHRA NAKORN, THAILAND



Rough scale: 2 cm. to 1 km.